1: Métraux E-4 (no date) 1946 SM3 Caingang SM3

some other tribe, the ancient *Caingang* were improvident and consumed their crops as they matured, storing none for the lean months ahead. On the other hand, Horta Barboza (1913, p. 34) states that maize was as important to them as "wheat for the Europeans." The *Caingang* of the region of San Pedro (Misiones), observed by Ambrosetti (1895, p. 337), opened their clearings in tracts covered with bamboo or sparse bush. They broke the small trees with cudgels or by hand. When the dead trees were dry, they burned them and waited until the beginning of the rainy season for sowing. Women planted crops with digging sticks; they also harvested the crops and carried them home. Men do all the farming in the reservation of Palmas.

In modern groups the tiller of a field is recognized as its exclusive owner; if he dies before harvest, the seedlings are destroyed.

Collecting.—When the *Caingang* were still living in their aboriginal condition, pine nuts of *Araucaria angustifolia*, a tree which has a distribution coinciding more or less with that of the tribe, was fundamental to the native diet. From April to June the Indians gathered in the forests to climb the trees and knock down the ripened fruits, which the women helped to pick up. The climbing technique—also used in getting honey or in robbing birds' nests—was to pass one noose around the feet, another around the tree and the climber's back, and alternately move the two bands up the trunk. The *Awakoma-Caingang* used only a noose of bamboo strips.

The *Caingang* also collected wild tubers (*Dioscorea* sp.) and a great many wild fruits, such as jaboticaba (*Myrciaria* sp.), pitanga (Myrtaceae sp.), articú (*Annona montana*), pineapples, papaya (*Carica papaya*), caraguatá (*Bromelia* sp.), etc. The starchy pith of the pindo palm (*Cocos romanzoffiana*) was formerly an important food item, but today has been supplanted by manioc flour.

Honey and the larvae of bees and especially the larvae of the tambú beetle, which abound in decayed palm and bamboo trunks, are prized delicacies. It is also reported in some sources that the ancient *Caingang* did not despise snakes or lizards.

Hunting.—The *Caingang* spend a large portion of their time hunting alone or in small parties. The dog, treated by some groups as an indispensable auxiliary, is a recent acquisition. Some *Caingang* groups lacked it as late as 1912. To develop the smelling powers of their dogs, the Indians expose them to the smoke of the burnt skin of the game which they are to stalk. They never give them the bones of game animals to gnaw, taking great precaution lest the game be offended.

An entire band participates in a peccary hunt. Old and young, preceded by dogs, endeavor to drive the animals toward hunters, who shoot them with arrows. The *Aweikoma-Caingang* follow droves

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plain how it was that he didn't kill. He walks about, telling loudly how he climbed this hill and descended that, how the thorns scratched him and how he saw no tracks. But the successful hunter sits down with the casual remark that "A tapir has been killed," and after a while, or next day, if it is late, the women go and bring it in. Before he sleeps he must mend his broken arrows, and late at night the yellow light of the dry bamboo illumines his puckered face still bent over them, while his wife sleeps with her baby against her breast. The Kaingáng do not sleep much. Even if there is no work to keep them up—no baskets for the men to weave, no arrows for them to mend—they are forever getting up to eat or to warm themselves by the fire. Before the reservation days they were a hunted people, harassed by another tribe, by the Brazilians, and by one another so that wakefulness became highly valued among them.

When the men are in camp they circulate noisily, but the women sit where they are, mingling their high-pitched voices with those of the men, taking an equal part in the conversation if it concerns anything they have any interest in. It is when the men are gone that the women come together for their own particular kind of intimate gossip: love affairs and projected separations; this one's change of heart and that one's scandalous behavior. They sit in a little group making dresses for themselves or sewing for their husbands or brothers, stopping every half hour or so to suckle their babies, who are given the breast whenever they cry, to scold a child who has defecated in a plate, to snatch another from the fire or to rub passionately a little head that has been bruised in falling. A man in the camp is an added spice to a spicy situation, and if a sprained limb or infected foot keeps him at home he becomes the focus for feminine jokes that run eternally in the same channel.

When the young women go out to pick up the fallen fruit or to gather the yellow *tai* fruit that grows in the center of a large spiked plant, they leave their babies with their old mothers or with other women to be suckled and cared for. Sometimes, if they have children who are a little grown, they may take them with them, but the Kaingáng do not feel that a woman should be accompanied by a little child so that its presence may prevent a swift and surreptitious sex encounter. They are generally free to pursue their love affairs secretly in the bush while their husbands are away, and if they cannot do that they spend their time talking about other people's affairs.

There is really very little for the women to do nowadays. Aside from their specifically feminine functions Kaingáng society could exist just as well without them. They "make the bed" and get the firewood, but their husbands help them build the house. The men hunt and also bring in most of the wild honey, for they range the farthest. It is they who climb the trees

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512 462 to chop out the hives that are far above the ground, and it is they who ascend the lofty pines to knock down the all-important nuts. The women stay below to gather up the nuts which their husbands have knocked down; yet very often two men cooperate in the enterprise. The women used to take ages to make robes and shirts and carrying-bands for their babies, but ever since the men began to raid the whites, blankets have largely replaced robes, fiber shirts have given way to vests, and the heavy iron Brazilian pot has become the "real" pot, while the ancient badly made clay one which the women made has become "my no-good pot" and completely disappeared. But there is no substitute for the strong, well-made baskets that the men make with such care. The men are even as good at spinning cord as the women are. The women cook, but Kaingáng cooking is simple and any child could do it. Besides, it is no disgrace for a man to cook or do anything a woman does, and a man often cooks his own supper if he is alone. Even the carrying of burdens is shared by the hard-working men, and I have seen them carrying their babies when the trail was long and burdens heavy.

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make it with a fire drill. They cut a piece of dry white canela about an inch thick, two inches wide, and two feet long and make a hole in it about half an inch deep, with a shallow groove on each side—Heaven knows what for[10]—extending over the edges of the stick. They also cut a smaller branch about a quarter of an inch in diameter and a foot and a half long; this is the drill. The Indian spits on his hands, places the drill in the hole, and begins to whirl the stick between his two palms, moving them up and down as he does so. After ten minutes he has no fire; so he calls another Indian and they alternate in whirling the drill. In five minutes more a wisp of smoke from the hole raises their hopes. They remove the drill and look—no spark. For five minutes more they drill, and then the spark comes. Sometimes the spark is on the end of the drill; sometimes it is on the side of the hole. Now the spark is placed on some dry palm leaves, and they blow on it until the leaves burst into flame.

I once saw two men attempt to make a fire with a three-foot base on which they could put their feet and a drill three feet long made of a long bamboo tube with a canela tip inserted at the bottom. They worked for twelve minutes without result. When a third man helped them they succeeded in obtaining a spark.

No sexual symbolism attaches to the fire-making apparatus.

Houses

Houses are built under pressure. It is theoretically woman's work, but in the excitement of sudden rain men and women cooperate. The woman goes for leaves for covering while the man cuts and sinks the heavy uprights and lighter boughs which are sharpened to a point at one end. He digs no hole for them but sinks them into the ground by raising them and throwing them repeatedly, with unerring eye, into the same hole, making it deeper with each throw. Sometimes two convenient trees are used as uprights. If the Indian should perchance decide to build the house long before the storm actually breaks and finds the ground is hard and dry he moistens the soil with whatever is at hand, even tapir soup.

When the uprights are in place the transverse is bound on about eight[11] feet above the ground. Now light boughs are sunk into the ground about nine feet in back of the uprights, *sloping away from them*, making an angle about 60° with the ground so that when they are bent over they will not break out. They are lifted and thrown into the ground just as the uprights were. The boughs are bent over and lashed to the transverse with

[10] What sparks were obtained were always in the hole itself or on the tip of the drill.

[11] Naturally if a house is built entirely by a woman it will be lower than if it is built by a man. Women may bind sloping poles against the uprights so that they can stand on them and reach high. The height of the house is much more variable than the width.

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Conclusions[17]

462 474 In spite of the incomplete character of the data some valid inferences can be made.

(1) Industries are overwhelmingly in the hands of the men, from the standpoint both of number and of importance. Before the raids on the settlers made pottery and clothing manufacture unnecessary the part played by women in the economy was somewhat more important than later when conditions made their techniques unimportant. The following table may make this clearer:

Industry	*Male*	*Female*
Hunting (CI)[18]	+	
Fruit gathering (I)	[+]*	+
Pine nuts (CI)	+	+
Honey gathering (CI)	+	[+]
Beer (C)	+	+
Cooking (I)		+
Fire making (CI)	+	
Houses (CI)	+	+
Bows (I)	+	
Arrows (I)	+	
Lances (CI)	+	
Clubs (I)	+	
Troughs (C)	+	
Mortars (I)	+	
Pestles (I)	+	[+]
Baskets (I)	+	
Spinning (I)	[+]	+
Robes (I)		+
Shirts (I)		+
Pots (I)		+
Carrying-bands (for infants) (I)		+
Dance ornaments (I)	+	
Lip plugs (I)	+	
Raiding Brazilians (C)	+	

The only important industry controlled by women was pottery, and when raiding the Brazilians loomed up as a new economic technique,

[17] My data on weaving and pottery are so scanty that I have not included them here.

[18] C=industries that are organized cooperatively; I=industries that are individualistic; CI=industries that are sometimes cooperative and sometimes individualistic.

* Brackets represent participation in a minor way.

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women's role in Kaingáng economy became insignificant. They continued to make their contributions, it is true, but these were small compared to men's.

(2) Although most of the techniques seem better suited to an individual working alone, whenever circumstances become exigent several individuals cooperate, as, for example, in the making of lances and troughs and the hunting of tapir with dogs.

In general, the way in which each industry is practised is inherent in the natural conditions under which it is maintained. Tapir hunting is both cooperative and individualistic but fails to achieve the maximum cooperation because the Kaingáng are unable to put into effect the elaborate technique necessary for killing tapir in the *carreira*, the best way of hunting tapir. Peccary are usually surrounded, but they may also be pursued by a lone hunter although surrounding is unquestionably the best means of taking them. The only way the Kaingáng killed deer under aboriginal conditions was by uttering its cry until it approached or by coming upon a deer by accident. The best way to kill deer that I know of is to station men along the river bank and kill the deer when it is driven into the water by dogs. This seems possible even without canoes,[19] but I never saw or heard of its being done by the Kaingáng. Such a technique requires long residence in one place and a knowledge of the places where the deer will probably enter the water when it is driven by the dogs. Under aboriginal conditions deer were always killed by lone hunters. The only *tateti* hunts that I know of were cooperative, and this seems the best arrangement. Birds are not snared but are hunted individually.

Thus, for the most part, hunting techniques are fundamentally affected by the natural conditions of the forest. The hunting of tapir and deer by the waiting technique requires not only a thorough knowledge of the territory but a considerable number of men so that one may be stationed on every *carreira*. Neither of these conditions could well be fulfilled under aboriginal conditions. In other words, natural conditions in hunting prevented the systematic following out of the social ideal of cooperative effort.

In the table most of the industries appear as "I," but some of the most important, like hunting and housebuilding, are both C and I, and the very important industry of raiding is entirely C. If we throw this evidence together with the general emphasis in social life we will see that in spite of the preponderance of the "I" industries Kaingáng culture is really not individualistic but is cooperative under all of the most important conditions of life. Indeed, Kaingáng culture is oriented toward a degree of cooperation unusual in a tribe having so few social forms. It is unnecessary to sum-

[19] Richard Lydekker's *The Royal Natural History*, Vol. II, p. 462, describes a tapir hunt witnessed by Carl Schomburgk in which just this technique was used.

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462 marize once more the attitudes and the procedures that express this co-
474 operation, which reaches its highest expression in the prosecution of the feuds. The search for food and the institutions of polyandry and joint marriage supply additional occasions for cooperation. Actually what we have in Kaingáng society is a large number of individualistic techniques employed within a social framework that is essentially cooperative.